

Supporting Research Data: A Collaborative Library Approach



ANNA CRAFT

METADATA CATALOGER

LYNDA KELLAM

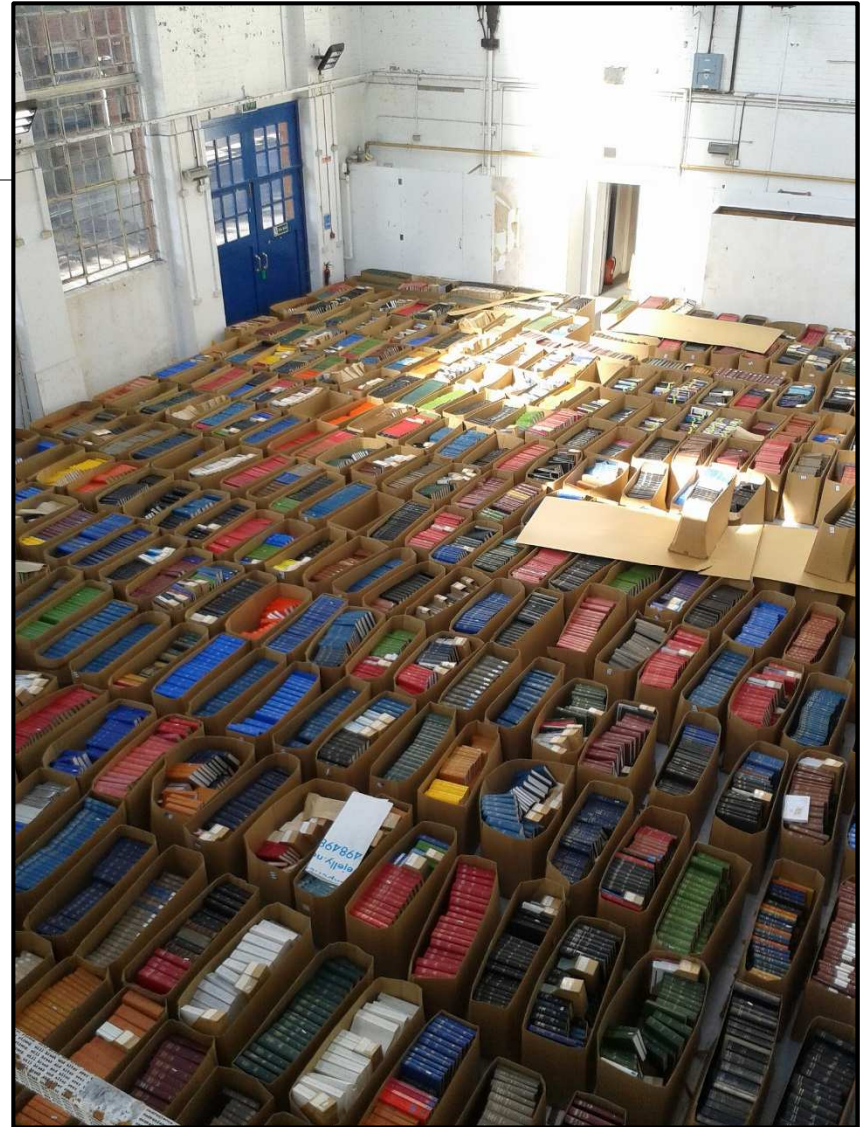
DATA SERVICES LIBRARIAN



THE UNIVERSITY OF NORTH CAROLINA AT GREENSBORO

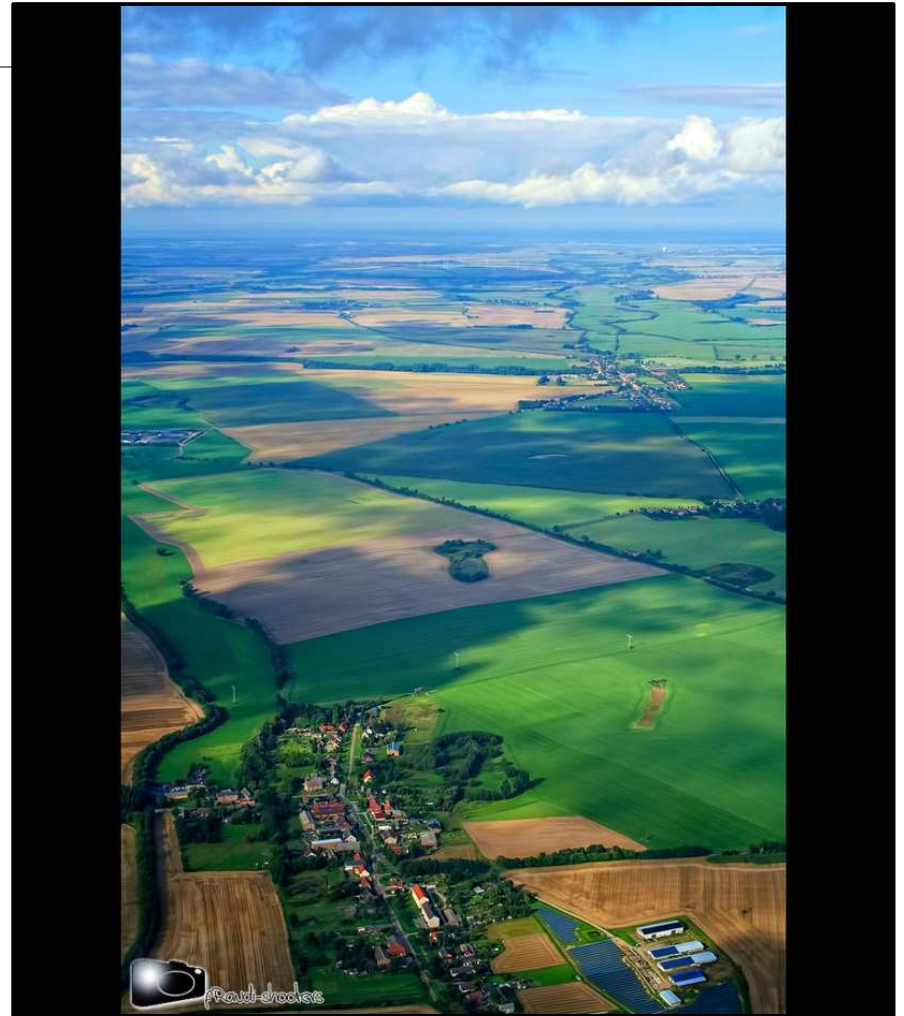
Questions:

- How many of you work in institutions that are currently providing research data management (RDM) support services for users?
- Is RDM support a cross-departmental effort in your institution, or is it centralized?



Overview

- UNCG and the University Libraries
- UNCG's research data support service model
- Outreach efforts
- Institutional repository/Dataverse integration
- Challenges, value, future directions



UNC Greensboro

- Public, four-year research university
- One of seventeen campuses in the UNC System
- FTE is 19,000 students



UNCG University Libraries

Collections:

- 2.8 million items (books, govdocs, and microforms)
- 42,666 electronic journals
- 250+ electronic databases

Collection strengths:

- Local and regional history
- Music/performing arts
- University history
- Women's history

Staff:

- Approximately 90 FTE
- 30 tenured or tenure-track faculty



We build things



UNCG BORN-DIGITAL RECORDS MANAGEMENT



WT Cox Subscriptions Acquires Journal Finder From UNCG

WT Cox Subscriptions (www.wtcox.com) has entered into an agreement to purchase Journal Finder from The University of North Carolina Greensboro (UNCG; <http://journalfinder.uncg.edu/uncg>). Journal Finder, the first OpenURL Link Resolver to go into production in the U.S., gives library patrons easy access to the electronic resources to which a library subscribes. Journal Finder was created and designed and has been maintained by the Electronic Resources and Information Technology staff of UNCG.

Why research data management? And why the libraries?

- The Libraries are already in the business of preserving, providing access, and supporting faculty research.
- Pre-existing data discovery support.
- Culture of support for open access, desire to extend those offerings.
- Funder requirements (NSF, NIH, and other granting agencies).
- Demonstrated need on campus.
 - Survey results
 - Requests from faculty



THE UNIVERSITY *of* NORTH CAROLINA

GREENSBORO

Jackson Library

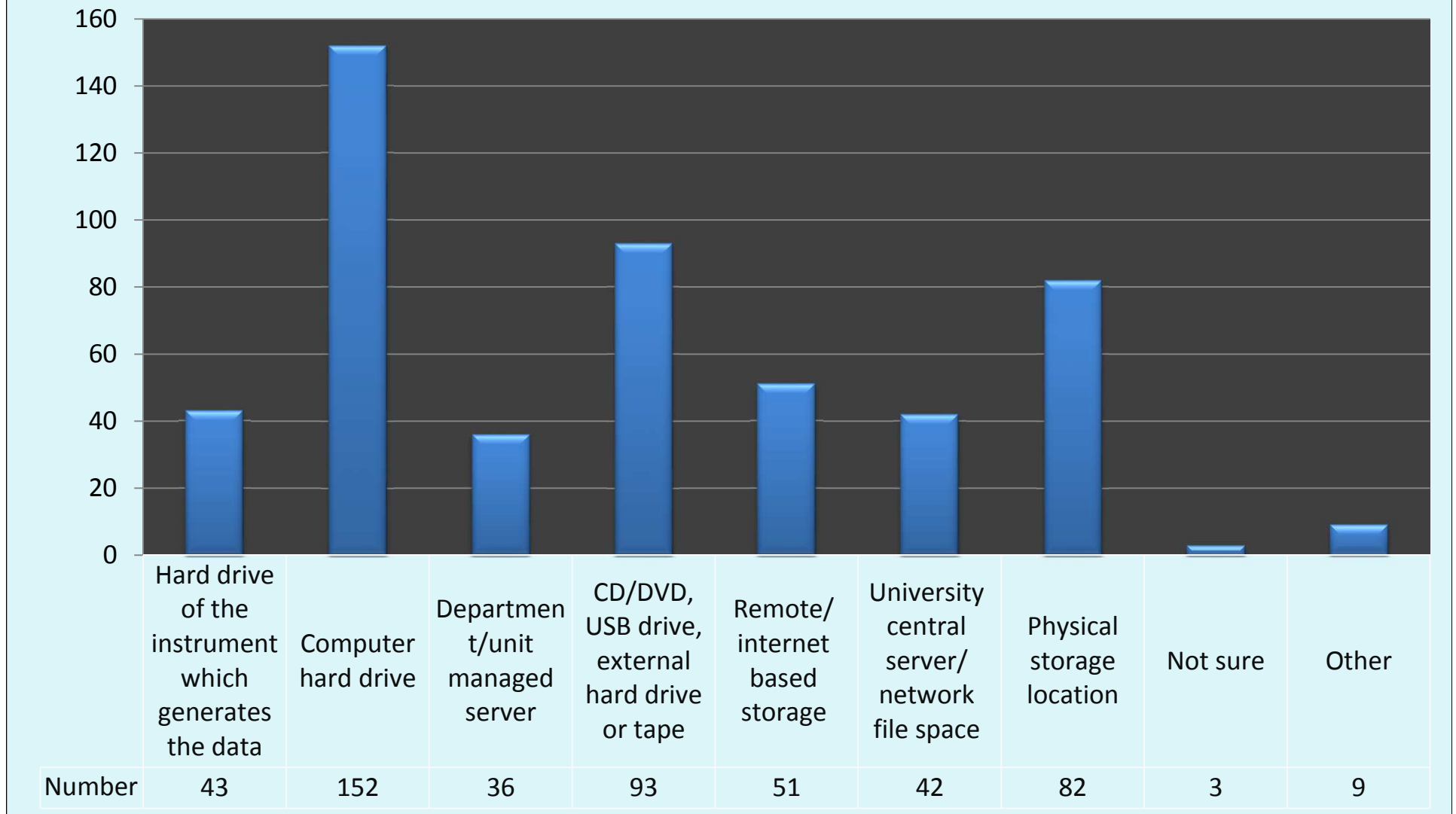
Secondary data discovery

- New Data Services & Government Information Librarian position created in 2007.
- Focus on supporting data discovery primarily for government data, data archives, and subscription sources.



U.S. Census Bureau

Locations for Storing Data



From UNCG Faculty Research Data Support Needs Survey report,
October 2013

We're part of a bigger picture

Other partners in campus research data management services:

- Office of Sponsored Programs
- Information Technology Services
- Departmental programs
 - School of Health and Human Sciences
 - School of Nursing



UNCG

What do we do?

- Educate about data and data management best practices.
- Assist in the creation of data management plans.
- Provide an option for sharing and archiving data (NC DOCKS/ Odum Institute partnership).
- Connect researchers to other (non-library) services.

[University Libraries](#) / [Research Guides](#) / [Data Services: Research Data Management](#) / [Home](#)

Data Services: Research Data Management: Home

Guide to assist with the research data management process

[Home](#)

[Why Data Management?](#)

[Creating a data management plan](#)

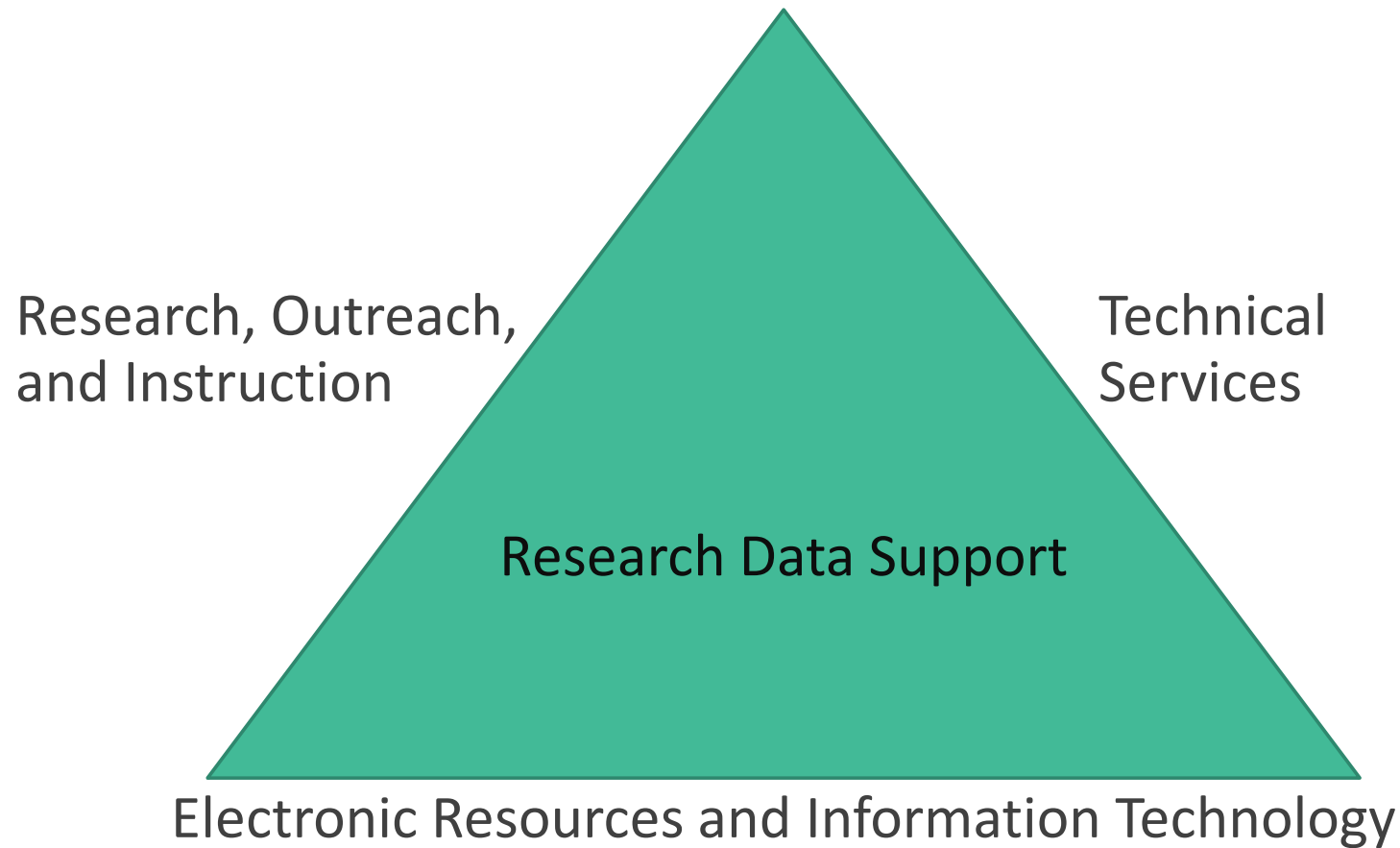
[Data storage](#)

[Sharing & archiving your data](#)

[Finding Data](#)

<http://uncg.libguides.com/RDM>

Library roles



Research, Outreach, and Instruction (ROI)

- Serves as connection to the faculty and research offices regarding data needs.
- Provides training to graduate students and faculty on RDM best practices.
- Provides assistance with data management plans or archiving options as requested.
- Works within the liaison team structure to support researchers in every discipline.



Research
Data
Support

Technical Services

- Sets metadata policies and creates documentation.
- Manages item and metadata loading in NC DOCKS (IR) and Dataverse.
- Provides assistance with research data questions.
- Targeted outreach to faculty.
- Training, training, training.



Research
Data
Support

Electronic Resources and Information Technology (ERIT)

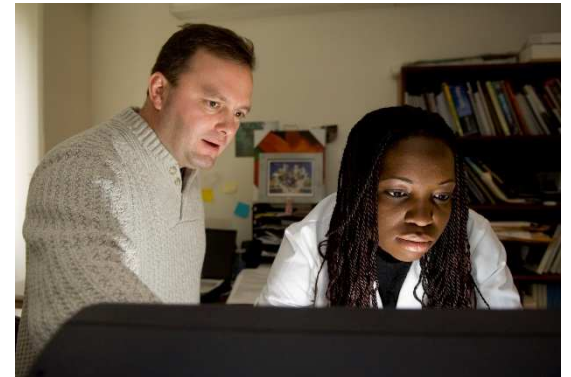
- Manages NC DOCKS server, develops and supports NC DOCKS product.
- Consults on requests involving local technology support.



Research
Data
Support

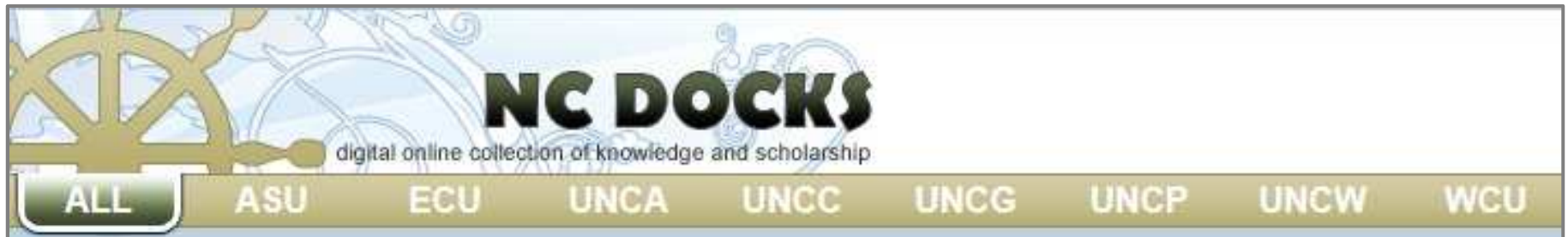
Whom do we support?

Students, faculty, and staff.



Whom do we support?

Institutional partners



Research data management task force

- Personnel:
 - Associate Dean for Public Services
 - Assistant Dean for Electronic Resources and Information Technology
 - Health Sciences Reference Librarian
 - Science Liaison Librarian
 - Data Services and Government Information Librarian
 - Metadata Cataloger
- Develop a plan for supporting RDM in the library

Targeted outreach

- Open Access Policy initiative
- Departmental meetings
- Outreach to research offices, Research Advisory Council, and Office of Research Integrity
- Research data management best practices workshops
- “Responsible Conduct of Research: Taking the High Road to Better Data” presentation series

Open access policy initiative

Open Access:
Sharing your scholarship



What about research data?

- Data management planning resources
- Research data hosting (through a partnership with the Odum Dataverse at UNC Chapel Hill)
- There are other options - just ask to learn more!



Outreach to campus departments and research groups

The screenshot shows the NC DOCKS website home page. The header includes the NC DOCKS logo and navigation tabs for ALL, ASU, ECU, UNCA, UNCC, UNCG, UNCP, UNCW, and WCU. The UNCG tab is selected. On the left, there are three main sections: 'Browse All' with links for Titles, Author By Last Name, Keywords, and Departments; 'Theses & Dissertations' with links for Titles, Author By Last Name, Advisor By Last Name, Keywords, Type, and Degrees By Discipline; and 'Submissions' with links for Faculty Submissions, Student Submissions, and Research Data. The main content area features a search bar, a 'Most recent additions' list with links to various documents, and a 'Featured Item' section titled 'Memory Collection' by Hinson, Dustin.

The screenshot shows the University of North Carolina at Greensboro Dataverse page. The header includes the NC DOCKS logo and navigation tabs for ALL, ASU, ECU, NCSSM, UNCG, UNCP, UNCW, and WCU. The UNCG tab is selected. The page is titled 'University of North Carolina at Greensboro Dataverse' and is powered by the Dataverse Network. It displays the title 'UNIVERSITY OF NORTH CAROLINA AT GREENSBORO UNIVERSITY LIBRARIES LIBQUAL+ RESULTS' with the handle 'hdl:1902.29/11520' and the version '1 - Released: Mon Aug 12 09:30:42 EDT 2013'. The 'CATALOGING INFORMATION' section includes tabs for 'Data & Analysis', 'Comments (0)', and 'Versions'. A 'Data Citation' section provides a citation for the data: 'Crowe, Kathryn, 2013, "University of North Carolina at Greensboro University Libraries LibQual+ results", http://hdl.handle.net/1902.29/11520 UNCG University Libraries [Distributor] V1 [Version]'. The 'Data Citation Details' section lists the title, study global ID, and authors.

RDM workshops



Research Data @ UNCG Univ. Libraries

Lynda Kellam, Data Services Librarian, lmkellam@uncg.edu

“Responsible Conduct of Research”



The image is a screenshot of a website titled "RESEARCH INTEGRITY". The website has a dark blue header with the title in white. Below the header is a navigation bar with five tabs: "HOME", "ABOUT", "RESPONSIBLE CONDUCT OF RESEARCH (RCR)", "TRAINING", and "REVIEW". The "RESPONSIBLE CONDUCT OF RESEARCH (RCR)" tab is selected. The main content area has a white background and features the title "RESPONSIBLE CONDUCT OF RESEARCH" in bold blue text. Below the title is a paragraph explaining that RCR involves shared responsibility for the responsible conduct of research among institutional administration, research oversight committees, and researchers. It also mentions that an effective RCR program includes comprehensive institutional policies and procedures for the conduct and review of research, coordination of all units (administrative offices, oversight committees, etc.) that impact the responsible conduct of research, systematic education programs in RCR, and systematic quality assurance/quality improvement activities. Below this paragraph is a section titled "Responsible conduct of research (RCR) includes:" followed by a bulleted list of ten items: Conflict of interest (personal, professional, financial); Policies regarding human subjects, live vertebrate animal subjects in research, and safe laboratory practices; Mentor/mentee responsibilities and relationships; Collaborative research, including collaborations with industry; Peer review; Data acquisition and laboratory tools; management, sharing and ownership; Research misconduct and policies for handling misconduct; Responsible authorship and publication; The scientist as a responsible member of society, contemporary ethical issues in biomedical research, and the environmental and societal impacts of scientific research. At the bottom of the page, there is a paragraph stating that the UNCG Office of Research Integrity (ORI) offers training to meet the regulatory requirements of both the National Institutes of Health and the National Science Foundation. Additionally, this program meets the institutional goal of developing a university-wide approach to meeting the ethical standards that it was founded upon.

RESEARCH INTEGRITY

[HOME](#) [ABOUT](#) [RESPONSIBLE CONDUCT OF RESEARCH \(RCR\)](#) [TRAINING](#) [REVIEW](#)

RESPONSIBLE CONDUCT OF RESEARCH

Responsible Conduct of Research (RCR) involves shared responsibility for the responsible conduct of research among the institutional administration, the research oversight committees and the researchers. An effective RCR program includes comprehensive institutional policies and procedures for the conduct and review of research, coordination of all units (administrative offices, oversight committees, etc.) that impact the responsible conduct of research, systematic education programs in RCR and systematic quality assurance/quality improvement activities.

Responsible conduct of research (RCR) includes:

- Conflict of interest (personal, professional, financial)
- Policies regarding human subjects, live vertebrate animal subjects in research, and safe laboratory practices
- Mentor/mentee responsibilities and relationships
- Collaborative research, including collaborations with industry
- Peer review
- Data acquisition and laboratory tools; management, sharing and ownership
- Research misconduct and policies for handling misconduct
- Responsible authorship and publication
- The scientist as a responsible member of society, contemporary ethical issues in biomedical research, and the environmental and societal impacts of scientific research

The UNCG Office of Research Integrity (ORI) offers training to meet the regulatory requirements of both the National Institutes of Health and the National Science Foundation. Additionally, this program meets the institutional goal of developing a university-wide approach to meeting the ethical standards that it was founded upon.

Types of requests

- Informational – **“How can you help me?”**
 - What services do you provide in this area?
 - Will you look at my data management plan?
 - What repository should I use?
- Technical support – **“This isn’t working.”**
 - Why won’t Dataverse load my data set?
 - Why isn’t this file type displaying?
- Training – **“I need help doing this.”**
 - How do I write a data management plan?
 - How do I get my data into Dataverse?

Questions we ask: DMP creation stage

- What type of data will be produced?
- What standards will be used for documentation and metadata?
- What steps will be taken to protect privacy, security, confidentiality, intellectual property, or other rights?
- If you allow others to reuse your data, how will the data be accessed and shared?
- How will the data be archived for preservation and long-term access?

http://uncg.libguides.com/ld.php?content_id=4103017



A note on DMPs



- RDM LibGuide offers general DMP information and tips
- We offer access to DMPTool, but we are not a partner, so we don't offer templates for researchers
- No formal requirement for researchers to bring DMPs to the library

<http://uncg.libguides.com/c.php?g=117281&p=763183>

Questions we ask:

Researchers who already have data

- What field is the researcher working in?
- What format is the data in?
- What is the size of the dataset?
- Is there existing metadata? Is there a codebook?
- Are there privacy concerns with the data, such as PII?

UNCG's research data partnership



NC DOCKS at a glance

- Open access
- Home-grown system
- Collaborative partnership bringing together eight UNC system schools
- Faculty, staff, and student works
- Articles, presentation slides, ETDs, audiovisual materials, and more
- Discovery via Google



Browse All

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Type

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Submissions

Faculty Submissions

Student Submissions

Research Data

NC DOCKS

Search Repository

UNCG

Search

:: Most recent additions

[Knowledge spillovers, collective entrepreneurship, and economic growth: the role of universities](#) by [Leyden, Dennis P.](#) and [Link, Albert N.](#) (2013)

[Regional Appropriation of University-Based Knowledge and Technology for Economic Development](#) by [Leyden, Dennis P.](#) and [Link, Albert N.](#) (2013)

[Contrasting Professional Development and Continuing Education Opportunities for Library Professionals: Offerings Both within and Outside the Profession](#) by [Bradshaw, A. Kathy](#) (2013)

[Effects of acute exercise on long-term memory](#) by [Etnier, Jennifer L.](#) and [Labban, Jeffrey](#) (2011)

[Fossil GPS](#) by [Anemone, Robert](#) (2014)

[Are Female Supervisors More Female-Friendly?](#) by [Gicheva, Dora](#) (2014)

["Interpreting Mozart: The Performance Practice of his Piano Pieces and Other Compositions"](#) by [Eva Badura-Skoda](#) and [Paul Badura-Skoda](#) by [Willis, Andrew](#) (2009)

[Racial awareness: effects on justice perceptions and trust in management in the USA](#) by [Buttner, Eleanor "Holly"](#) (2015)

[Community collections: Exploring three distinct approaches to collaboration and outreach through digitization initiatives](#) by [Gwynn, David](#) (2015)

[Civil Rights Greenpapers and other community based](#)

:: Featured Item

Everyday Specific

[Bell, Jeffrey](#)

Studio Art

UNCG

My thesis is an investigation of sculptures made from everyday things. This body of work was created by combining elements from a variety of functional objects and materials in order to create work th... [View More](#)

<http://libres.uncg.edu/ir/>

Metadata for NC DOCKS

- Metadata entry is handled in the Cataloging Department
- Harvested by the WorldCat Digital Collection Gateway
- MARC XML export option
- OAI-PMH



Please select an administrative function below.



Browse All

Titles

Author By Last Name

Keywords

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Titles

Author By Last Name

Advisor By Last Name

Keywords

Type

Degrees By Discipline

Submissions

Faculty Submissions

Student Submissions

Research Data

Fossil GPS

UNCG Author/Contributor (non-UNCG co-authors, if there are any, appear on document)

Robert Anemone, Professor and Department Head (Creator)

Institution

The University of North Carolina at Greensboro (UNCG)

Web Site: <http://library.uncg.edu/>

Abstract: The article focuses on paleontology and discusses how luck has played a big role in many of the world's great fossil discoveries. It also discusses a new technique that improves the odds of finding ancient bones. It reports on the use of modern computer models that look for hidden patterns in satellite images and generate maps of fossils sites, helping fossil hunters narrow their search.

Fossil GPS



PDF (Portable Document Format)

36 KB

Created on 5/5/2015

Views: 12

Additional Information

Publication

Scientific American, 310(5), 46-51

Language: English

Date: 2014

Keywords

Paleontology, Computer simulation, Remote-sensing images, Fossils, Paleoarchaeology

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Advisor By Last Name

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Degrees By Discipline

Submissions

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Student Submissions

Research Data

University of North Carolina at Greensboro University Libraries LibQual+ results

UNCG Author/Contributor (non-UNCG co-authors, if there are any, appear on document)

Kathryn Crowe, Associate Dean for Public Services (Creator)

Institution

The University of North Carolina at Greensboro (UNCG)

Web Site: <http://library.uncg.edu/>

Abstract: This LibQual+ library survey data was collected by the Association of Research Libraries (ARL) for the University Libraries at the University of North Carolina at Greensboro. Survey respondents were students, faculty, and staff at the University of North Carolina at Greensboro. This data was collected from October 15, 2012 to November 10, 2012. This data set and its associated documentation are available for download. To view and download the file, follow the link below and choose the "Data & Analysis" tab.

Link to data and documentation

<http://hdl.handle.net/1902.29/11520>

Additional Information

Publication

Language: English

Date: 2013

Keywords

Library surveys, Library assessment, gap analysis surveys, Library service quality, Academic library assessment

This item requires:

<http://libres.uncg.edu/ir/uncg/listing.aspx?styp=ti&id=14875>

Browse All

Titles

Author By Last Name

Keywords

Departments

Theses & Dissertations

Titles

Author By Last Name

Advisor By Last Name

Keywords

Type

Degrees By Discipline

Submissions

Submissions (Articles, Chapters, and other finished products)

Submissions (Research Data)

Help

Searching and Browsing

Odum Institute Dataverse Network >

University of North Carolina at Greensboro Dataverse

POWERED BY THE **Dataverse Network** PROJECT v. 3.6.2



Create Account

Log In

UNIVERSITY OF NORTH CAROLINA AT GREENSBORO UNIVERSITY LIBRARIES LIBQUAL+ RESULTS

hdl:1902.29/11520

Version: 1 – Released: Mon Aug 12 09:30:42 GMT-05:00 2013

CATALOGING INFORMATION

Data & Analysis

Comments (0)

Versions

i If you use these data, please add the following citation to your scholarly references. [Why cite?](#)

Data Citation

Crowe, Kathryn, 2013, "University of North Carolina at Greensboro University Libraries LibQual+ results", <http://hdl.handle.net/1902.29/11520> UNCG University Libraries [Distributor] V1 [Version]

Citation Format

Data Citation Details

Title	University of North Carolina at Greensboro University Libraries LibQual+ results
Study Global ID	hdl:1902.29/11520

<http://arc.irss.unc.edu/dvn/dv/UNCG/faces/study/StudyPage.xhtml?globalId=hdl:1902.29/11520>

Metadata in two systems

NC DOCKS

- Holds basic metadata about the data set, as well as a link to Dataverse.
- Data entry by Libraries' personnel.
- Metadata fields controlled and defined by Libraries' personnel.
- Fields are general, to accommodate many types of scholarly works.

DATVERSE

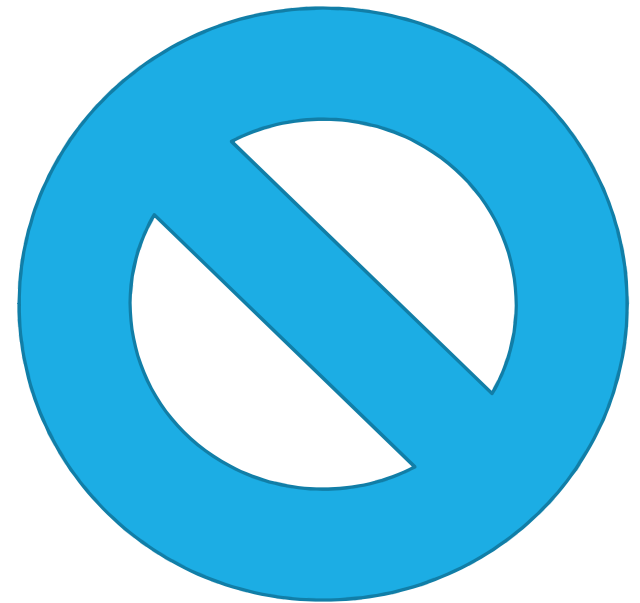
- Holds metadata and the actual data set(s), with option for much more detailed metadata.
- Data entry by faculty member or other user (with support from Libraries, if needed).
- Metadata fields controlled and defined by Dataverse.
- Fields are specific to research data and are DDI compliant

Documentation

Field	Field Part	Dataverse: Required / Recommended / Other	NC DOCKS: Required / Recommended / Other	Dataverse description	DC map	Data field format
Title	NA	Required	Required	Full authoritative title for the work at the appropriate level: marked-up document; marked-up document source; study; other material(s) related to study description; other material(s) related to study. The study title will in most cases be identical to the title for the marked-up document. A full title should indicate the geographic scope of the data collection as well as the time period covered. Title of data collection (2.1.1.1) maps to Dublin Core Title element. This element is required in the Study Description citation.	Title	text box - free
Subtitle	NA	Other	Other	A secondary title used to amplify or state certain limitations on the main title	none	text box - free
Publication	Citation	Recommended	Recommended	Bibliographic reference that includes author, title, year, and publisher of the publication associated with this study and data. Use any standard bibliographic format.	none	text box - free
Publication	Replication data for Original Publication	Recommended	Recommended	This will apply "Replication Data for:" to your title	none	check box

What we don't do

- Mandate library review of all DMPs
- Accept legal responsibility for data deposited in NC DOCKS/Dataverse
- Know the researcher's data/research area as well as they do
- Store private/confidential/sensitive data
 - Personal Identify Information
 - Electronic protected health information (ePHI/HIPAA data)
- Maintain restricted data access contracts



TERMS OF USE

The User Submissions do not contain information that could, directly or indirectly, identify subject except where the release of such identifying information has no potential for constituting an unwarranted invasion of privacy and/or breach of confidentiality. And for all personally-identifiable information in the data at least one of following conditions applies:

- this information has been previously released to the public;
- this information describes public figures, where the data relates to their public roles or other non-sensitive subjects;
- a sufficient length of time has passed since the collection of the information so that the data can be considered "historic";
- all identified subjects have given explicit informed consent allowing the public release of the information in the dataset;
- all information was collected with an explicit statement concerning the public nature of the data, such as information collected for governmental regulatory purposes;
- or, for federal records (data created by a U.S. federal government agency or under a federal contract) only, all identified subjects are deceased and no federal statute explicitly restricts the release of the data

By clicking the "I agree" checkbox below, I confirm that I have read and understood each and every term set forth in the terms and conditions for the use of data and other materials found above, and I agree to be bound by all of such terms and conditions.

If I do not understand or agree to all of the terms and conditions, I must not use or download any data or other materials.

☐ I agree and accept these terms of use.

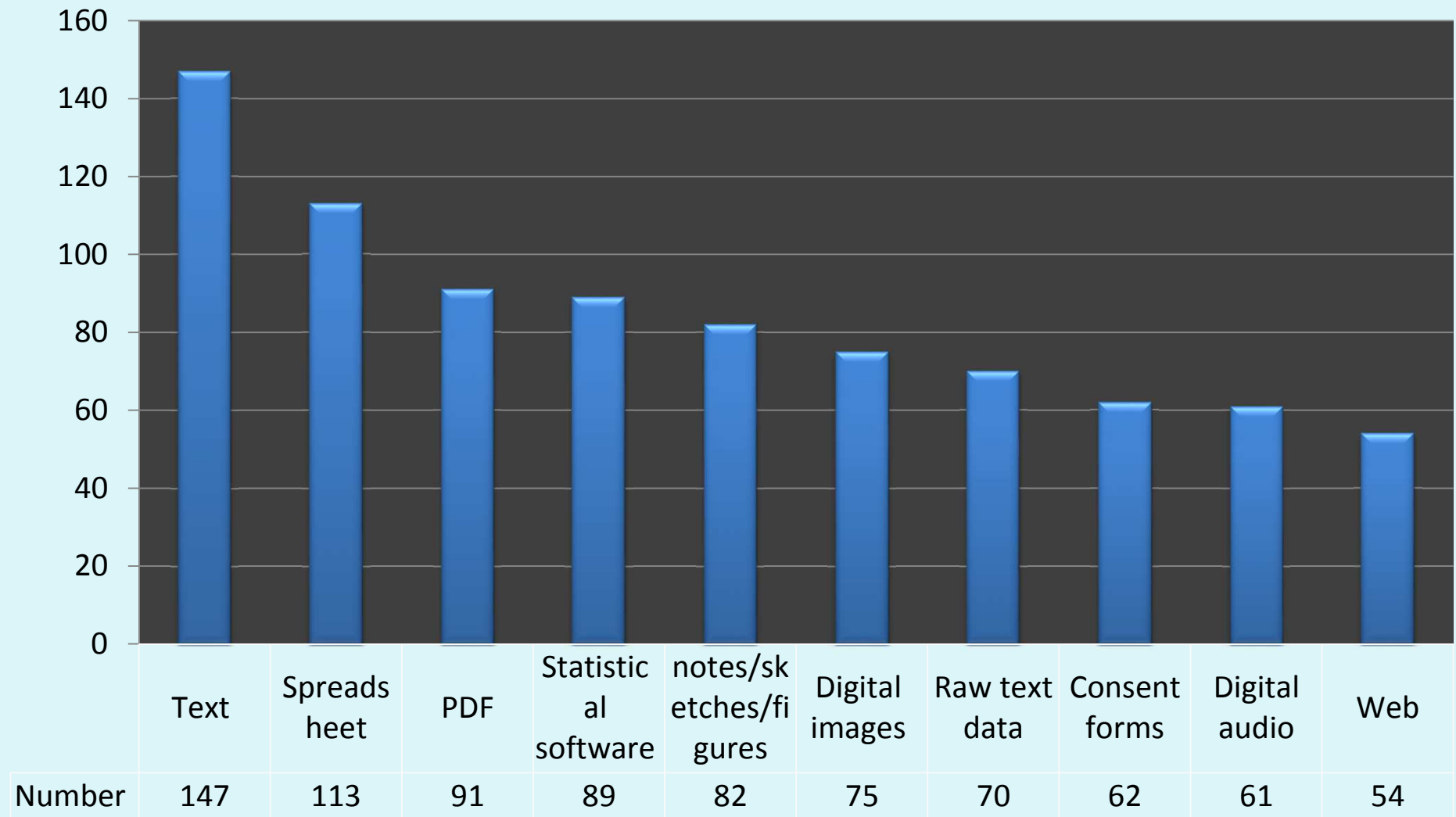
Continue

Cancel

NC DOCKS/Dataverse process

- Researcher contacts liaison librarian.
- Liaison librarian explains our services or contacts DS Librarian.
- Liaison librarian contacts Metadata Librarian.
- Further communications with researcher, via email or in-person.
- Metadata Librarian and/or liaison librarian assist researcher in loading materials into Dataverse and completing metadata entry.
- Metadata librarian completes associated metadata record in NC DOCKS.

Top 10 Research Data Formats



From the UNCG Faculty Research Data Support Needs Survey report,
October 2013

We aren't the only option

- Dryad
- figshare
- ICPSR
- ...and more!

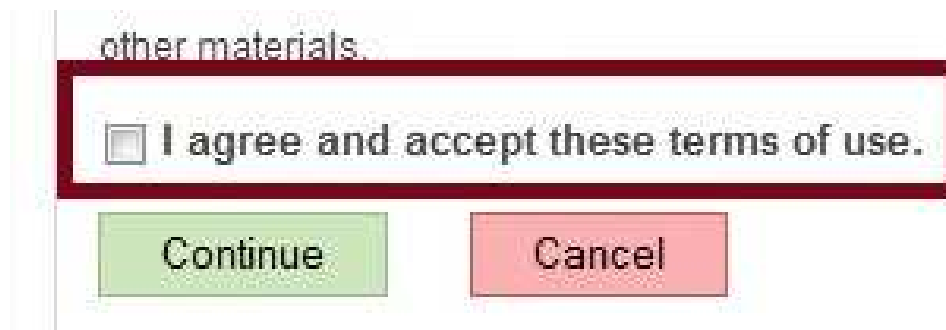


How is it going?

- Outreach sessions offered?
 - 2013-2014 – 1 session
 - 2014-2015 – 5 sessions
 - 2015-2016 – 6 sessions
- Information requests received?
- Access RDM page?
- DMPs created?
- Data sets loaded?

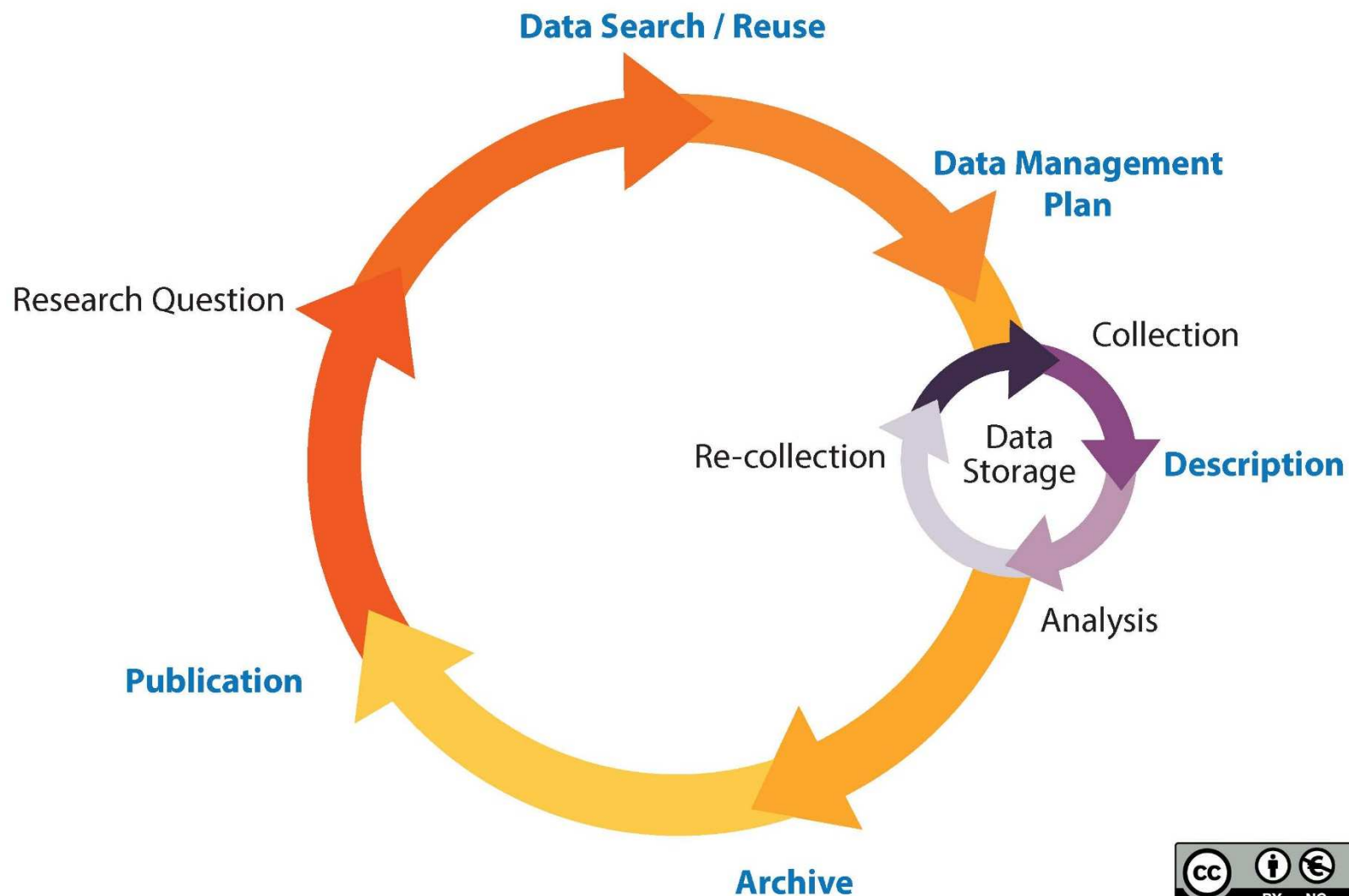
Challenges

- Limited resources (both budgetary and personnel)
- Communication and publicity
- “It’s one more thing to do”
- Changing expectations/requirements for data management
- The Research Data Lifecycle



A screenshot of a software dialog box. At the top, the text "other materials." is visible. Below it, there is a checkbox followed by the text "I agree and accept these terms of use." The checkbox is currently unchecked. The entire checkbox area is enclosed in a thick red rectangular border. At the bottom of the dialog box, there are two buttons: a green button labeled "Continue" on the left and a red button labeled "Cancel" on the right.

The Research Data Management Lifecycle



Value

- Strengthen relationships between Libraries, researchers, and scholarly communities
- Meet needs of campus constituencies
- Support new publishing/sharing models
- Demonstrate commitment to open access and the research data lifecycle



Looking forward

- Continue to follow developments in this area.
- Consider further extension of service offerings when budget allows.
- Publicize services to campus researchers and offer educational opportunities.



Photo by flickr user bengtham
([CC BY-NC-ND 2.0](#))

Thank you!

Anna Craft

Metadata Cataloger

arcraft@uncg.edu

Lynda Kellam

Data Services Librarian

lmkellam@uncg.edu



UNCG
University Libraries

UNCG Data Services Links

- NC DOCKS (Institutional Repository)
 - <http://libres.uncg.edu/ir/uncg/>
- Data management LibGuide
 - <http://uncg.libguides.com/RDM>
- UNCG Faculty Research Needs Survey Report
 - <http://libres.uncg.edu/ir/uncg/listing.aspx?id=16367>
- Scholarly Communications LibGuide
 - <http://uncg.libguides.com/scholarlycomm>
- Odum Institute at UNC Chapel Hill:
 - <http://www.odum.unc.edu/odum/home2.jsp>